The SLR 2000 Pseudo Operator

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The SLR 2000 Pseudo Operator (POP) controls or directs all aspects of the automated SLR 2000 system. It is a Pentium 200 single board computer mounted in a VME bus chassis. It will communicate between the Interface Control Computer (ICC) and the Data ANalysis computer (DAN) using a Bit-3 PCI to VME bus adapter, which contains 8 MB of dual ported RAM. POP will be running the LynxOS real-time operating system using approximately 25 customized threads of execution synchronized with a National Instruments timing system which provides 2kHz and 1Hz signals. POP will monitor the health and safety of the system foremost and control the acquisition and tracking (ACQ/TRK) of the satellites. Using a real-time scheduling algorithm, which provides the input of what is to be tracked and when, ACQ/TRK will determine what other duties to perform such as star calibration, ground calibration, performance assessment, and maintenance.